



Request for City Council Committee Action From the Department of Public Works

Date: November 9, 2010

To: Honorable Sandra Colvin Roy, Chair Transportation & Public Works Committee

Referral: Honorable Betsy Hodges, Chair Ways & Means Budget Committee

Subject: **Accelerated Reconstruction and Rehabilitation of the City's Storm Tunnel System**

Recommendation:

Amend the 2010 Capital Budget resolution (2009R-587) by increasing the PW - Storm Drains & Tunnel Rehab Program (SW011) appropriation by \$5,200,000 in fund 07300-9010932 to be funded through storm water revenue available in the stormwater fund balance

Previous Directives:

May 14, 2010: Resolution 2010R-239, City Council authorized staff to negotiate and execute easements with private property owners to acquire Temporary (Construction) and Permanent Easements for the 10th Avenue Southeast Storm Tunnel Outlet construction project.

December 7, 2009: Resolution 2009R-587 Adopted the 2010 - 2014 Five Year Capital Program

Prepared by: Kevin J. Danen, Principal Professional Engineer, Department of Public Works Surface Water and Sewers Division, 673-5627

Approved by:

Steven A. Kotke, P.E., City Engineer, Director of Public Works

Presenters: Lisa Cerney, Director of Surface Water and Sewers

Reviews

Permanent Review Committee (PRC): Approval NA Date _____

Civil Rights Approval Approval NA Date _____

Policy Review Group (PRG): Approval NA Date _____

Financial Impact

Action requires an appropriation increase to the Capital Budget

Dept Name: 9010932

Fund Name: 07300

Project Name: Storm Drains & Tunnel Rehab Program (SW011)
Amount: \$5,200,000

Action requires use of available reserve funds in the stormwater enterprise

Community Impact

Neighborhood Notification: Not Applicable

City Goals: A SAFE PLACE TO CALL HOME: the city's infrastructure will be well-maintained, people will feel safe in the city.

Comprehensive Plan: Not Applicable

Zoning Code: Not Applicable

Background/Supporting Information

Public Works is accelerating the reconstruction and rehabilitation of the City's storm tunnel system as presented in the 2011 Budget. The 10th Avenue, St Mary's, and Central City Tunnel systems have a number of deficiencies that need to be addressed. These needs were identified as a result of our storm tunnel condition assessment process. Public Works is requesting to increase the appropriation in the PW - Storm Drains & Tunnel Rehabilitation Program (07300-9010932-SW011) within the 2010 Capital Budget (2009R-587) by \$5,200,000. The increased appropriation would be funded through stormwater revenue available in the stormwater fund balance. The cash balance after this action will continue to exceed the three month operating cash reserve requirement and was considered as part of the 2011 recommended budget while setting stormwater utility rates for 2011 through 2015. There is a 0.5% increase in the 2012 utility rates compared to previous recommended rates to support the comprehensive accelerated storm tunnel program identified in the Capital Program. The 10th Avenue Storm Tunnel Outlet project is the first project in the accelerated program to use these identified funds.

The City of Minneapolis has deep storm water tunnels that discharge to the Mississippi River. The 10th Avenue Southeast storm tunnel system is located in southeast Minneapolis under 10th Avenue SE. The tunnel connects the surface drainage systems at Arthur St NE and Kennedy St NE on the north, East Hennepin Ave and Pierce St NE on the west, and 8th St SE and 15th Ave SE on the east to the Mississippi River.

The existing outlet section, constructed in 1882, starts at the Mississippi River and ends at 2nd Ave SE. It is a 6'- 6" x 6'- 6", 439 foot long horseshoe tunnel constructed of a brick invert, limestone block walls, and a cast-in-place concrete arch. It was originally a sanitary sewer outlet connecting a shaft hole at 2nd Ave SE to the river.

Although the existing outlet section is generally in fair condition, it is significantly smaller than the remaining sections of the tunnel and causes large pressurization in the upstream tunnel segments. The pressurization is causing significant deterioration of the upstream tunnel liner, resulting in longitudinal fractures in the tunnel liner and voiding outside of the tunnel liner in the soft St. Peter Sandstone. The proposed project will enlarge the diameter of the tunnel in the existing alignment and alleviate some of the pressurization in the tunnel. Future 10th Ave SE tunnel projects will address the tunnel liner condition.

Cc: Council Member Kevin Reich, Ward 1
Council Member Diane Hofstede, Ward 3
Lisa Cerney, Director - Surface Water and Sewers
David Schlueter, Procurement
Johnnie Burns, Civil Rights
Mike Abeln, Finance
Bishow Dhungana, Finance